

**IN THE CLAIMS:**

Please amend the claims as follows:

Claim 1 (Currently Amended): A scattering medium measuring apparatus of performing measurement using time resolved spectroscopy method comprising:

N pieces (N represents an integer of 2 or more) of measuring modules with each having a single light irradiating unit means for irradiating a scattering medium with pulse light irradiated from a predetermined light irradiating position to measure internal information thereof non-invasively and a plurality of at-least-one light detecting units means for detecting light irradiated from the light irradiating unit means and propagating through the inside of the scattering medium at [[a]] predetermined light detecting position positions; and

timing instruction means for instructing the light irradiating unit and the light detecting units included in each of the N pieces of measuring modules, respectively, on an irradiation timing and a detection timing, wherein

in each of the N pieces of measuring modules, detection probes of the light detecting units are arranged around an irradiation probe of the light irradiating unit, and the irradiation probe and the detection probes are arranged so that each light detecting position has the same distance from the light irradiating position, and wherein

based on instruction signals from the timing instruction means, N pieces of the light irradiating units means corresponding, respectively, to the N pieces of measuring modules are adapted to irradiate the scattering medium with the pulse light successively at the different irradiation timings, and wherein each of the light detecting units means is adapted to detect light

at the [[a]] detection timing synchronized with the irradiation timing of the corresponding light irradiating unit means.

Claim 2 (Canceled).

Claim 3 (Currently Amended): The scattering medium measuring apparatus according to claim 1, wherein the interval of the irradiation timing between two of the light irradiating units means having successive irradiation timings is 1μsec or less.

Claim 4 (Currently Amended): The scattering medium measuring apparatus according to claim 1, wherein N pieces of light sources are installed to supply pulse light, respectively, to N pieces of the light irradiating units means.

Claim 5 (Currently Amended): The scattering medium measuring apparatus according to claim 1, wherein M pieces (M represents an integer of 1 or more to less than N) of light sources are installed to supply pulse light to a plurality of light irradiating units means among N pieces of the light irradiating units means.

Claim 6 (Currently Amended): The scattering medium measuring apparatus according to claim 1, wherein part of a plurality of the light detecting units means is shared by a plurality of the measuring modules.

Claim 7 (Canceled).

Claim 8 (New): The scattering medium measuring apparatus according to claim 1, wherein the N pieces of measuring modules are arranged closely to each other, or arranged in such a manner as to be overlapped partially with each other.

Claim 9 (New): The scattering medium measuring apparatus according to claim 1, wherein, in each of the N pieces of measuring modules, the detection probes are arranged at each vertex of a regular polygonal shape centering on the irradiation probe.